

167334

10/4/05

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 3/15/2004 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 272-2511.

Date 9/29/05 Serial # 101664,547 Priority Application Date _____
 Your Name M. Lewis Examiner # _____
 AU 2822 Phone 972-1838 Room 5A30
 In what format would you like your results? Paper is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.
Need before 10/2

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Other _____
 Secondary Refs ☐ Foreign Patents ☐ _____
 Teaching Refs ☐ _____

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 49-53

Problem: See pages 1-4
Solution: 11 11 4-9

Claims 7/95/05

Searcher's Name

Spencer Hard

Searcher's Title

NTIC-416200, JEF-4B68

Date Searcher Picked Up:

10/4/05

Date Completed:

10/5/05

Searcher Prep/Rev Time:

140

Online Time:

150

Type of Search:

MINIMUM (#)

MINIMUM

MINIMUM

Fulltext

Patent Family

Other

citat.

Vendor:

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MINIMUM

MINIMUM

Lexis-Nexis

WWW/INTNET

Other

10/04/2005

10/664,547

SYSTEM:OS - DIALOG OneSearch

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200563

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*File 350: For more current information, include File 331 in your search.

Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)

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Set	Items	Description
S1	191	S1:S38
S2	77	S1 AND (DRAM OR RAM OR SGRAM OR SDRAM OR SRAM OR EDRAM OR - RANDOM()ACCESS()MEMOR???? OR STATIC()RANDOM()ACCESS()MEMOR???? OR STATIC()RAM? ? OR DYNAMIC()RAM? ? OR DYNAMIC()RANDOM()ACC- ESS()MEMOR????)
S3	61	S2 AND (CAPACITOR? ? OR (PLANAR? OR STACK? OR TRENCH?) (2N)- CAPACITOR? ? OR CAPACITOR? ?(2N) (BIT OR BITLINE OR BIT()LINE) OR COB)
S4	2	S3 AND CONTACT?(2N)PILLAR? ?
S5	59	S3 NOT S4
S6	20	S5 AND (MEMOR?(2N)CELL? ? OR (MEMOR? OR CELL?) (2N)DENSIT?)
S7	0	S6 AND ((TRENCH? OR GROOVE? OR BURIED OR CHANNEL? OR EDGE? OR FLUSH OR RIDGE? OR SLOT? OR CHAMBER???? OR VESSEL??? OR SE- CTION???? OR MODUL???? OR ENCLOSUR??? OR TUNNEL?) (2N) (ISOLAT? OR INSULAT? OR OXIDE OR DIELECTRIC?) OR DEEP??? (2N)TRENCH? ?)
S8	11	S6 AND ((INSULAT? OR DIELECTRIC? OR METAL? OR PMD) (2N) (LAY- ER??? OR FILM??? OR COAT??? OR MULTILAYER??? OR MULTI()LAYER?- ???? OR SPACER??? OR INTERLAYER???? OR INTER()LAYER????? OR M- ULTIPLE()LAYER? ?))
S9	11	IDPAT (sorted in duplicate/non-duplicate order)
S10	11	IDPAT (primary/non-duplicate records only)
S11	9	S6 NOT S8
S12	9	IDPAT (sorted in duplicate/non-duplicate order)
S13	8	IDPAT (primary/non-duplicate records only)

10/04/2005

10/664,547

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2005/Sep W4
(c) 2005 Institution of Electrical Engineers

*File 2: Archive data back to 1898 has been added to File 2.

File 6:NTIS 1964-2005/Sep W4
(c) 2005 NTIS, Intl Cpyrght All Rights Res

File 8:Ei Compendex(R) 1970-2005/Sep W4
(c) 2005 Elsevier Eng. Info. Inc.

File 34:SciSearch(R) Cited Ref Sci 1990-2005/Sep W4
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File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
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File 35:Dissertation Abs Online 1861-2005/Sep
(c) 2005 ProQuest Info&Learning

File 65:Inside Conferences 1993-2005/Oct W1
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File 94:JICST-EPlus 1985-2005/Aug W1
(c)2005 Japan Science and Tech Corp(JST)

File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Aug
(c) 2005 The HW Wilson Co.

File 144:Pascal 1973-2005/Sep W4
(c) 2005 INIST/CNRS

File 305:Analytical Abstracts 1980-2005/Sep W3
(c) 2005 Royal Soc Chemistry

*File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.

File 315:ChemEng & Biotec Abs 1970-2005/Sep
(c) 2005 DECHEMA

File 350:Derwent WPIX 1963-2005/UD,UM &UP=200563
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*File 350: For more current information, include File 331 in your search.
Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2005/Apr(Updated 050801)
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File 344:Chinese Patents Abs Aug 1985-2005/May
(c) 2005 European Patent Office

File 371:French Patents 1961-2002/BOPI 200209
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*File 371: This file is not currently updating. The last update is 200209.

File 23:CSA Technology Research Database 1963-2005/Sep
(c) 2005 CSA.

Set	Items	Description
S1	732	AU=(HOUSTON, T? OR HOUSTON T?)
S2	110	S1 AND (DRAM OR RAM OR SGRAM OR SDRAM OR SRAM OR EDRAM OR - RANDOM()ACCESS()MEMOR???? OR STATIC()RANDOM()ACCESS()MEMOR???? OR STATIC()RAM? ? OR DYNAMIC()RAM? ? OR DYNAMIC()RANDOM()ACC- ESS()MEMOR????)
S3	11	S2 AND (CAPACITOR? ? OR (PLANAR? OR STACK? OR TRENCH?) (2N)- CAPACITOR? ? OR CAPACITOR? ? (2N) (BIT OR BITLINE OR BIT()LINE) OR COB)
S4	6	S3 AND (MEMOR?(2N)CELL? ? OR (MEMOR? OR CELL?) (2N)DENSIT?)
S5	6	RD (unique items)
S6	5	S3 NOT S4
S7	4	RD (unique items)
S8	99	S2 NOT S3
S9	31	S8 AND (MEMOR?(2N)CELL? ? OR (MEMOR? OR CELL?) (2N)DENSIT?)
S10	28	RD (unique items)
S11	1	S10 AND IC=(H01L-027/108 OR H01L-029/76 OR H01L-029/94 OR - H01L-031/119)
S12	27	S10 NOT S11
S13	0	S12 AND CONTACT?(2N)PILLAR? ?
S14	2	S12 AND ((TRENCH? OR GROOVE? OR BURIED OR CHANNEL? OR EDGE? OR FLUSH OR RIDGE? OR SLOT? OR CHAMBER???? OR VESSEL??? OR S- ECTION???? OR MODUL???? OR ENCLOSUR??? OR TUNNEL?) (2N) (ISOLAT? OR INSULAT? OR OXIDE OR DIELECTRIC?) OR DEEP??? (2N)TRENCH? ?)
S15	2	RD (unique items)
S16	25	S12 NOT S14
S17	4	S16 AND (SUBSTRAT? OR SURFACE? OR BASE? OR SUBSTRUCT? OR U- NDERSTRUCT? OR UNDERLAY? OR FOUNDATION? OR PANE? OR DISK? OR - DISC? OR WAFER? OR CC=(A6855 OR A8115 OR B0520 OR B2570) OR M- C=(T03-A01B OR T03-A01B1) OR IC=G11B-005/704)
S18	4	RD (unique items)
S19	21	S16 NOT S17
S20	21	RD (unique items)
S21	0	S20 AND ((INSULAT? OR DIELECTRIC? OR METAL? OR PMD) (2N) (LA- YER??? OR FILM??? OR COAT??? OR MULTILAYER??? OR MULTI()LAYER- ????? OR SPACER??? OR INTERLAYER????? OR INTER()LAYER????? OR - MULTIPLE()LAYER? ?))
S22	0	S20 AND (DENSIT?(2N) (INCREAS? OR DECREAS? OR HIGHER OR LOW- ER))
S23	21	S20 AND (MEMOR?(2N)CELL? ? OR (MEMOR? OR CELL?) (2N)DENSIT?)
S24	1680046	(INTEGRAT???????? (3N) (CIRCUIT???????? OR LOOP? ?)) OR IC OR CHIP? ?
S25	1067833	(INSULAT? OR DIELECTRIC? OR METAL? OR PMD) (2N) (LAYER??? OR FILM??? OR COAT??? OR MULTILAYER??? OR MULTI()LAYER????? OR S- PACER??? OR INTERLAYER????? OR INTER()LAYER????? OR MULTIPLE()- LAYER? ?)
S26	4897	IMD OR INTER()METAL()DIELECTRIC?
S27	1071340	S25:S26
S28	23641933	SUBSTRAT? OR SURFACE? OR BASE? OR SUBSTRUCT? OR UNDERSTRUC- T? OR UNDERLAY? OR FOUNDATION? OR PANE? OR DISK?
S29	9532837	DISC? OR WAFER? OR CC=(A6855 OR A8115 OR B0520 OR B2570) OR MC=(T03-A01B OR T03-A01B1) OR IC=G11B-005/704
S30	12047	STI OR SHALLOW()TRENCH()ISOLAT?
S31	135184	(TRENCH? OR GROOVE? OR BURIED OR CHANNEL? OR EDGE? OR FLUSH OR RIDGE? OR SLOT? OR CHAMBER???? OR VESSEL??? OR SECTION???? OR MODUL???? OR ENCLOSUR??? OR TUNNEL?) (2N) (ISOLAT? OR INSUL- AT? OR OXIDE OR DIELECTRIC?) OR DEEP??? (2N)TRENCH? ?

10/04/2005

10/664,547

S32 141526 S30:S31
S33 526 CONTACT?(2N)PILLAR? ?
S34 508611 CAPACITOR? ? OR (PLANAR? OR STACK? OR TRENCH?) (2N)CAPACITO-
R? ? OR CAPACITOR? ?(2N)(BIT OR BITLINE OR BIT()LINE) OR COB
S35 249937 DRAM OR RAM OR SGRAM OR SDRAM OR SRAM OR EDRAM OR RANDOM()-
ACCESS()MEMOR???? OR STATIC()RANDOM()ACCESS()MEMOR???? OR STA-
TIC()RAM? ? OR DYNAMIC()RAM? ? OR DYNAMIC()RANDOM()ACCESS()ME-
MOR????
S36 37890 IC=(H01L-027/108 OR H01L-029/76 OR H01L-029/94 OR H01L-031-
/119)
S37 141495 MEMOR?(2N)CELL? ? OR (MEMOR? OR CELL?) (2N)DENSIT?
S38 261222 DENSIT?(2N)(INCREAS? OR DECREAS? OR HIGHER OR LOWER)
S39 756682 S27 AND (S28 OR S29)
S40 11798 S39 AND S35
S41 5741 S40 AND S34
S42 9 S41 AND S33
S43 9 RD (unique items)
S44 5732 S41 NOT S42
S45 1677 S44 AND S37
S46 92 S45 AND S38
S47 31 S46 AND S32
S48 19 S47 AND S36
S49 19 RD (unique items)
S50 12 S47 NOT S48
S51 4 S50 AND S24
S52 4 RD (unique items)
S53 8 S50 NOT S51
S54 8 S53 AND S31